What is claimed is:

1. An array substrate for use in a liquid crystal display device, comprising:

a gate line arranged in a horizontal direction on a substrate;

a data line arranged in a vertical direction perpendicular to the gate line over the substrate; and

a thin film transistor formed near a crossing of the gate and data lines, the thin film transistor comprising:

a gate electrode that is a portion of the gate line near said crossing, wherein the gate electrode has an opening portion in its central portion;

a first insulation layer on the gate electrode;

a semiconductor layer formed on the first insulation layer and over the gate electrode;

a drain electrode formed on the semiconductor layer and over the gate electrode, the drain electrode corresponding to the opening of the gate electrode; and

a source electrode extended from the data line and formed in a same plane as the drain electrode, the source electrode surrounding the drain electrode and opening of the gate electrode along steps of the semiconductor layer.

2. The array substrate according to claim 1, further comprising a second insulation layer formed over the thin film transistor, the second insulation layer having a drain contact hole that exposes a portion of the drain electrode.

3. The array substrate according to claim 2, further comprising a pixel electrode formed in a pixel region that is defined by the gate and data lines, the pixel electrode contacting the drain electrode through the drain contact hole.

4. The array substrate according to claim 1, wherein the opening of the gate electrode has an inverted "T"-shape.

5. The array substrate according to claim 4, wherein the opening of the gate electrode includes first and second opening portions.

6. The array substrate according to claim 5, wherein the first opening portion is formed in a horizontal direction parallel with the gate line.

7. The array substrate according to claim 5, wherein the second opening portion is formed in a vertical direction perpendicular to the first opening portion.

8. The array substrate according to claim 1, wherein the drain electrode has an inverted "T'-shape.

9. The array substrate according to claim 8, wherein the drain electrode includes first and second electrode portions.

10. The array substrate according to claim 9, wherein the first electrode portion is arranged in a horizontal direction parallel with the gate line and corresponds to the first opening portion of the gate electrode.

11. The array substrate according to claim 9, wherein the second electrode portion is arranged in a vertical direction perpendicular to the first electrode portion and corresponds to the second opening portion.

12. The array substrate according to claim 1, wherein the opening of the gate electrode is shaped like a rectangle.

13. The array substrate according to claim 12, wherein the drain electrode has an inverted "T"-shape and first and second electrode portions.

14. The array substrate according to claim 13, wherein edges of the first electrode portion overlap the gate electrode.

15. The array substrate according to claim 14, wherein three side edges of the first electrode portion overlap the gate electrode.

16. The array substrate according to claim 14, wherein two side edges of the first electrode portion overlap the gate electrode.

17. A liquid crystal display (LCD) device, comprising:

a substrate;

a gate line on the substrate and extending along a first direction, the gate line having an opening therein;

a first insulating layer on the gate line;

a semiconductor layer on the first insulating layer over at least a portion of the opening;

a data line on the insulating layer and extending along a second direction substantially perpendicular to the first direction;

a drain electrode on the semiconductor layer over at least a portion of the opening; and

a source electrode on the semiconductor layer, extending from the data line and being separated and spaced apart from the drain electrode.

18. The LCD device of claim 17, further comprising a second insulation layer over the semiconductor layer and the source and drain electrodes, the second insulation layer having a drain contact hole that exposes a portion of the drain electrode.

19. The LCD device to claim 18, further comprising a pixel electrode disposed in a pixel region that is defined by an intersection of the gate and data lines, the pixel electrode contacting the drain electrode through the drain contact hole.

20. The LCD device of claim 17, wherein the opening in the gate line has substantially a "T" shape.

21. The LCD device of claim 17, wherein the source electrode substantially surrounds the drain electrode.

22. The LCD device of claim 17, wherein the drain electrode has substantially a "T" shape.

23. The LCD device of claim 17, wherein the drain electrode comprises:

a first portion which overlaps the opening; and

a second portion which overlaps the gate line on at least two opposing sides of the opening.

24. A method of forming a liquid crystal display device, comprising:

forming a gate line on a substrate, the gate line extending along a first direction and having an opening therein;

forming a first insulating layer on the gate line;

forming a semiconductor layer on the first insulating layer over at least a portion of the opening;

forming a data line on the insulating layer extending along a second direction substantially perpendicular to the first direction, a drain electrode on the semiconductor layer over at least a portion of the opening and, and a source electrode on the semiconductor layer extending from the data line and separated and spaced apart from the drain electrode.

25. The method of claim 24, further comprising forming a second insulation layer over the semiconductor layer and the source and drain electrodes, the second insulation layer having a drain contact hole that exposes a portion of the drain electrode.

26. The method of claim 25, further comprising forming a pixel electrode in a pixel region that is defined by an intersection of the gate and data lines, the pixel electrode contacting the drain electrode through the drain contact hole.

27. The method of claim 24, wherein the opening in the gate line is formed in substantially a "T" shape.

28. The method of claim 24, wherein the source electrode is formed to substantially surround the drain electrode.

29. The method of claim 24, wherein the drain electrode is formed in substantially a "T" shape.

30. The method of claim 24, wherein forming the drain electrode comprises forming a first portion which overlaps the opening and a second portion which overlaps the gate line on at least two opposing sides of the opening.